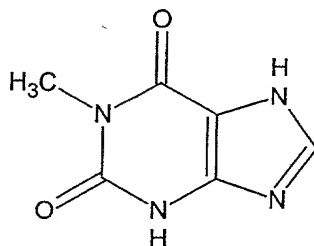


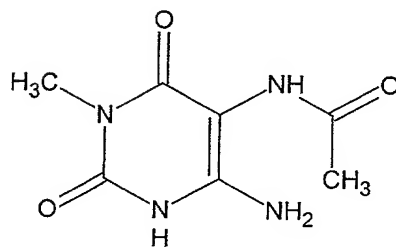
Basic Structure of N-(Aryl Substituted) -  
naphthalidimides

Fig. 1

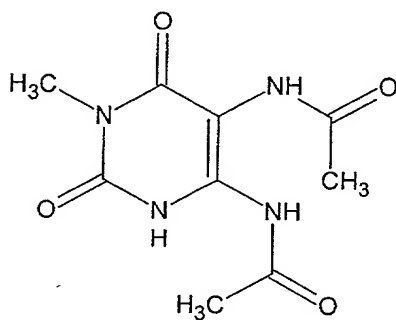
**NAT2**



1X (1-methylxanthine)



AAMU (5-acetamino-6-amino-methyluracil)

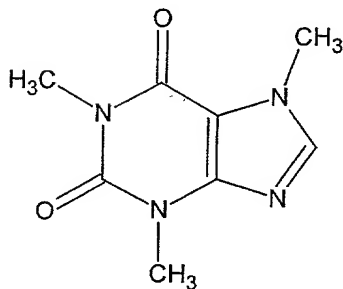


AFMU (5-acetamino-6-formylamino-methyluracil)

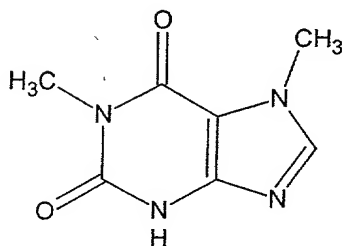
**Fig. 2**

2020-06-01 10:00:00

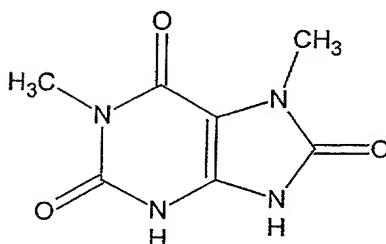
**CYP1A2**



Caffeine (1,3,7-trimethylxanthine)



1,7-DMX (1,7-dimethylxanthine)

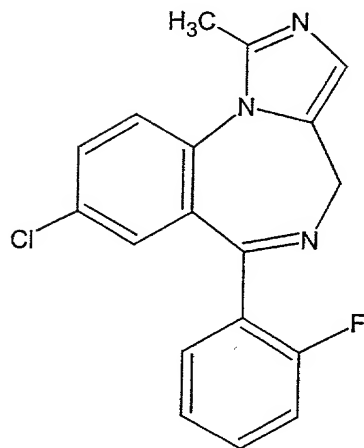


1,7-DMU (1,7-dimethyluracil)

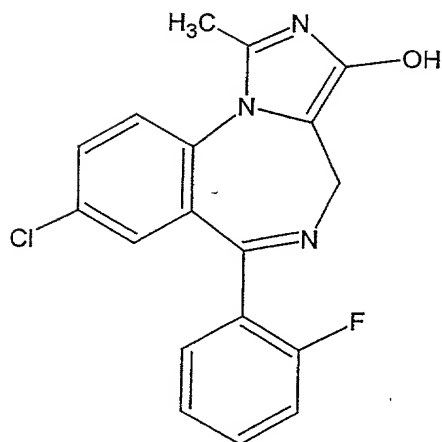
**Fig. 3**

208220-96628001

**CYP3A4**



MDZ (Midazolam)

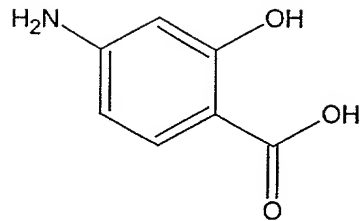


1-OH-MDZ (1-Hydroxymidazolam)

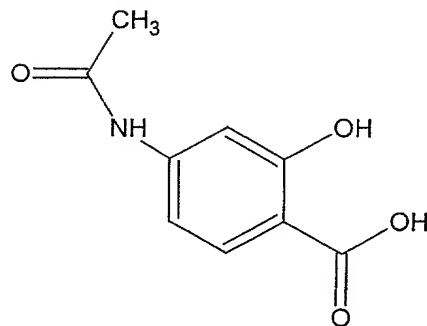
**Fig. 4**

208220-966280T

**NAT1**



p-ASA (p-aminosalicylic acid)

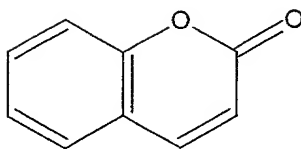


Acetyl-pASA (acetyl-p-aminosalicylic acid)

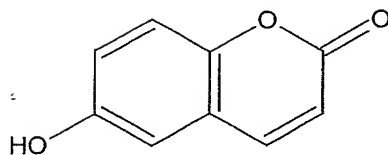
**Fig. 5**

20220906 10:20:00

**CYP2A6**



Coumarin

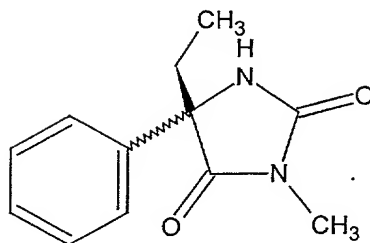


7-Hydroxycoumarin

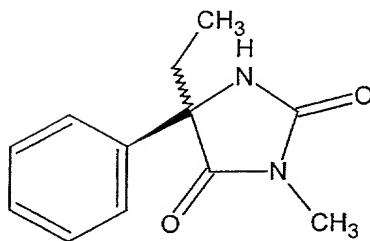
**Fig. 6**

20320 966001

**CYP2C19**



R-(-)-Mephénytoin

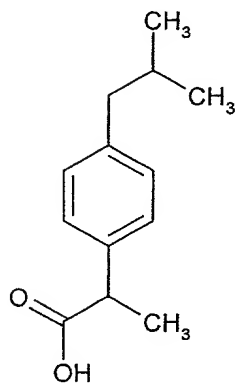


S-(+)-Mephénytoin

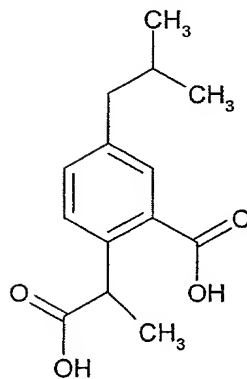
**Fig. 7**

10087996-02230  
20220926 16:00

**CYP2C9**



(s) -Ibuprofen



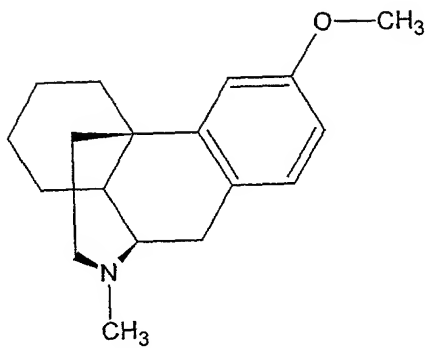
2-carboxvibuprofen

**Fig. 8**

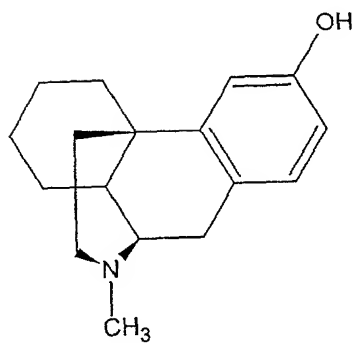
20220920 966/2001



CYP2D6



Dextromethorphan

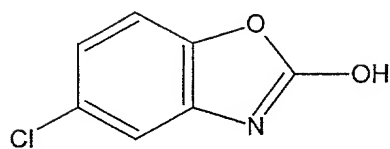


Dextrorphan

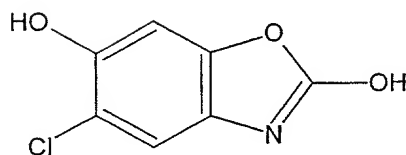
Fig. 9

2022-05-25 10:00:00

CYP2E1



Clorzoxazone



6-Hydroxychlorzoxazone

Fig. 10

20250909 09:56:28

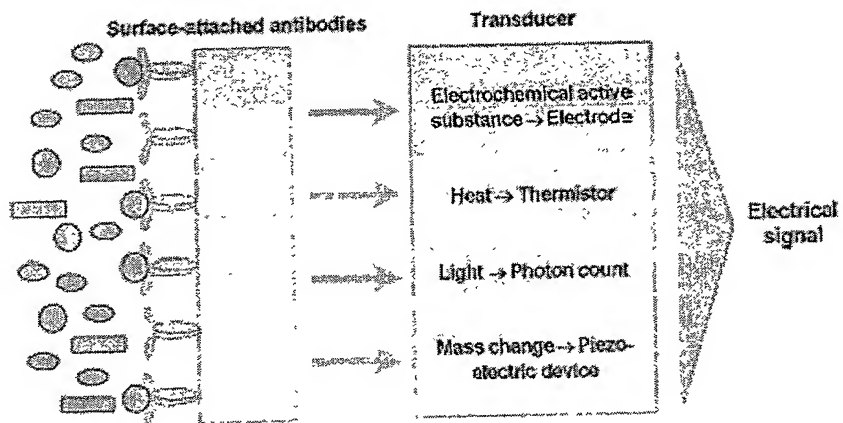


Fig. 11

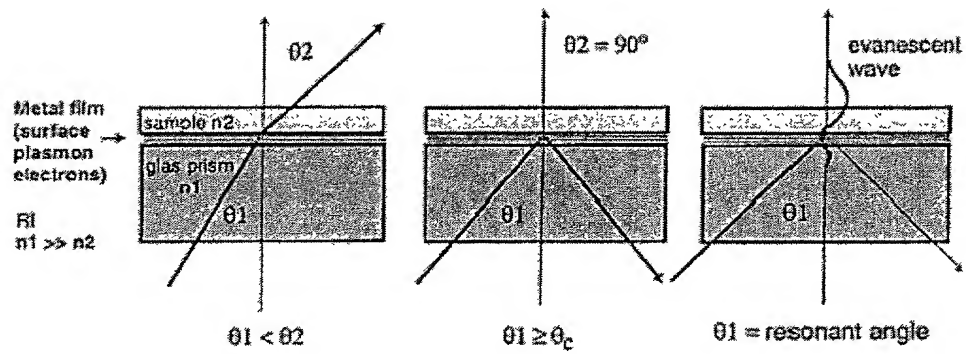


Fig. 12

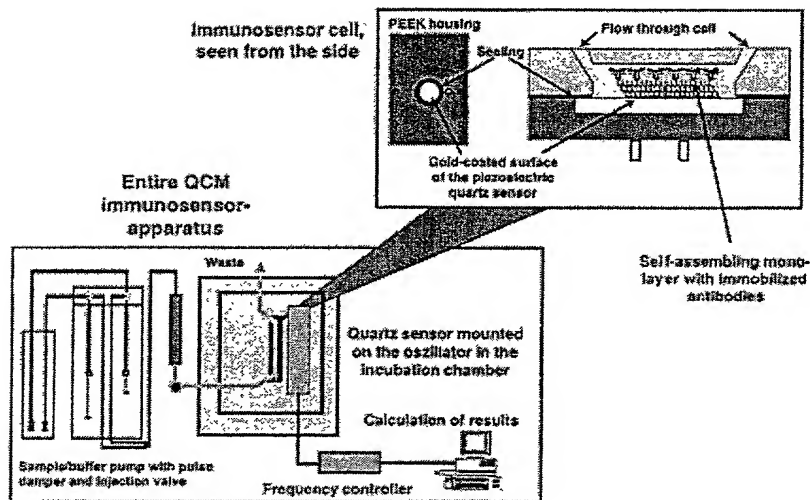
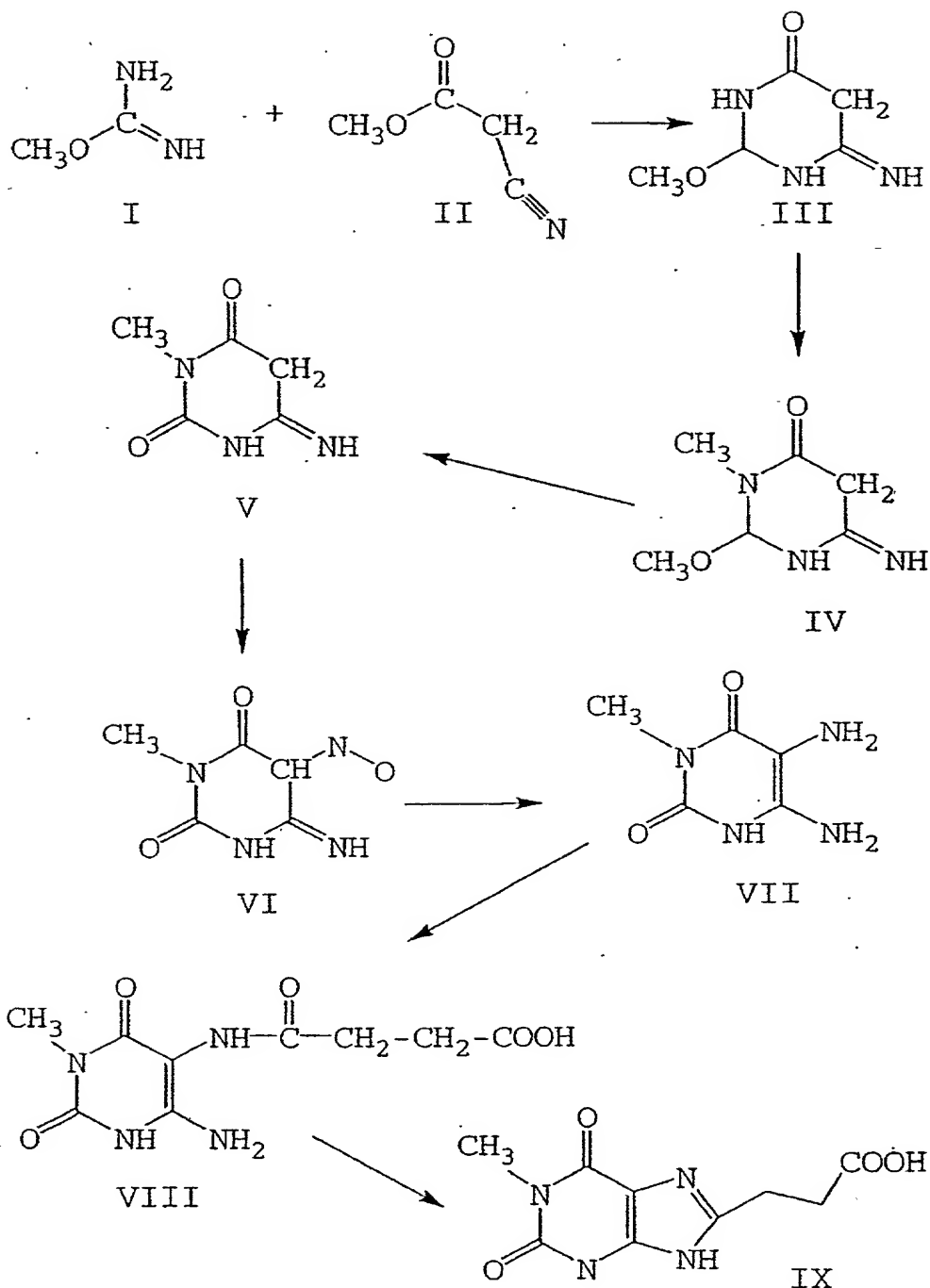


Fig. 13

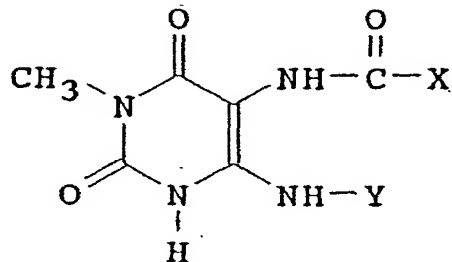


AAMU-hemisuccinic acid

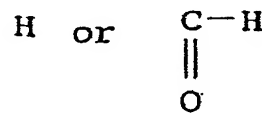
1 methyl xanthine-8-propionic acid

Fig. 14

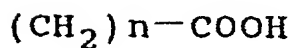
Derivatives of AAMU (5-acetamino-6-amino-3-methyluracil) or  
 AFMU (5-acetamino-6-formylamino-3-methyluracil)



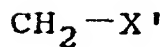
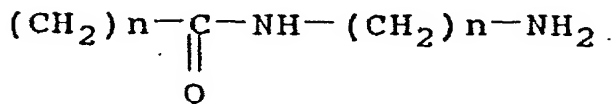
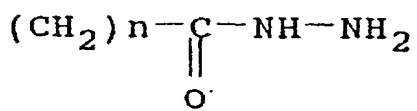
Where Y is



X



where n = 2, 3 or 4



where X' is I, Br, or Cl

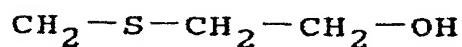
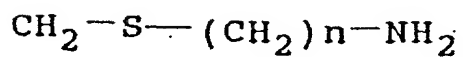
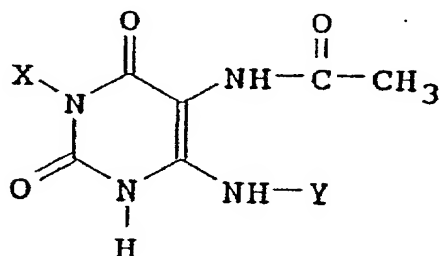
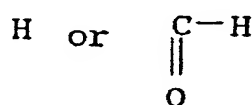


Fig. 15

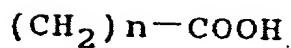
Derivatives of AAMU (5-acetamino-6-amino-3-methyluracil) or  
 AFMU (5-acetamino-6-formylamino-3-methyluracil)



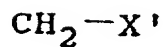
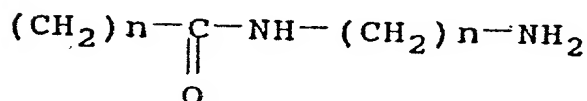
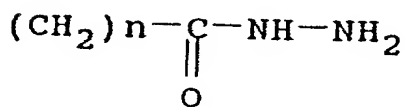
Where Y is



X



where n = 2, 3 or 4



where X' is I, Br, or Cl

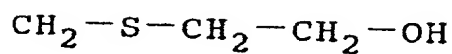
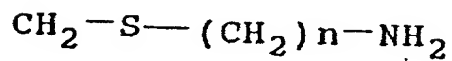
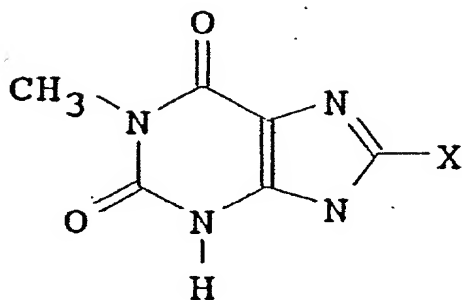


Fig. 16

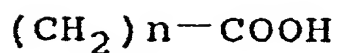
208220-966280F



Derivatives of 1X (methylxanthine)



X



where n = 2, 3 or 4

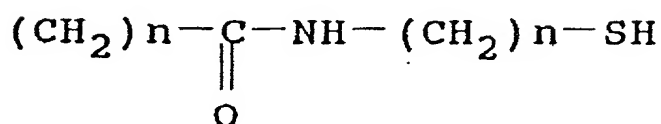
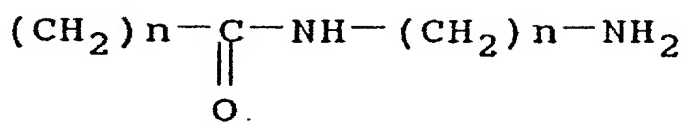
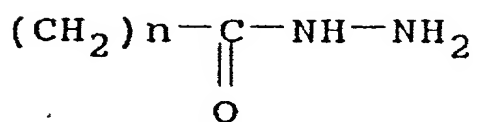
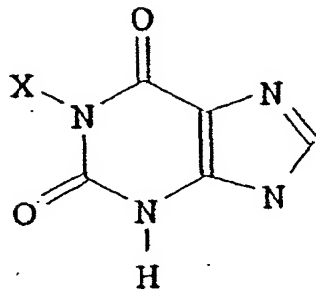
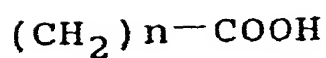


Fig. 17

Derivatives of 1X (methylxanthine)



X



where  $n = 2, 3$  or  $4$

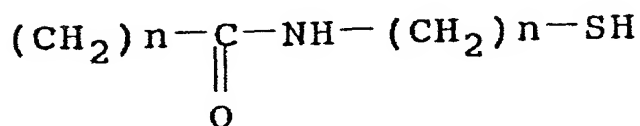
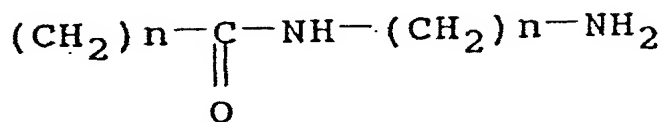
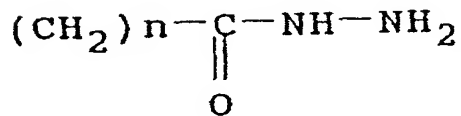


Fig. 18

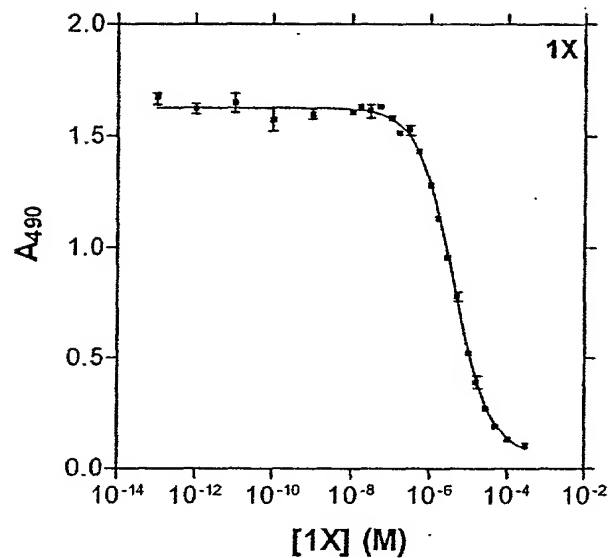
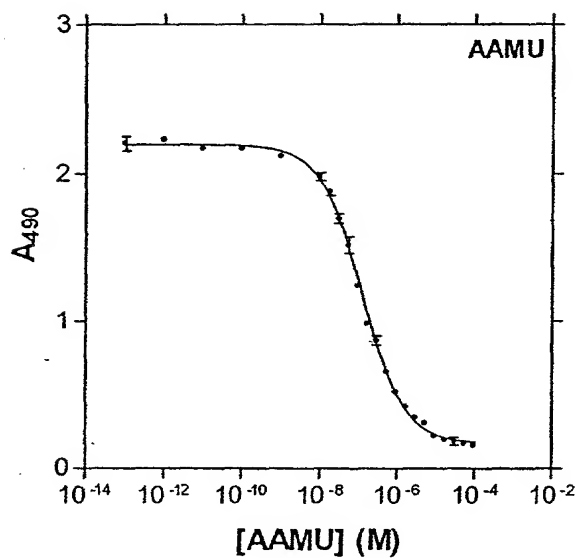


Fig. 19

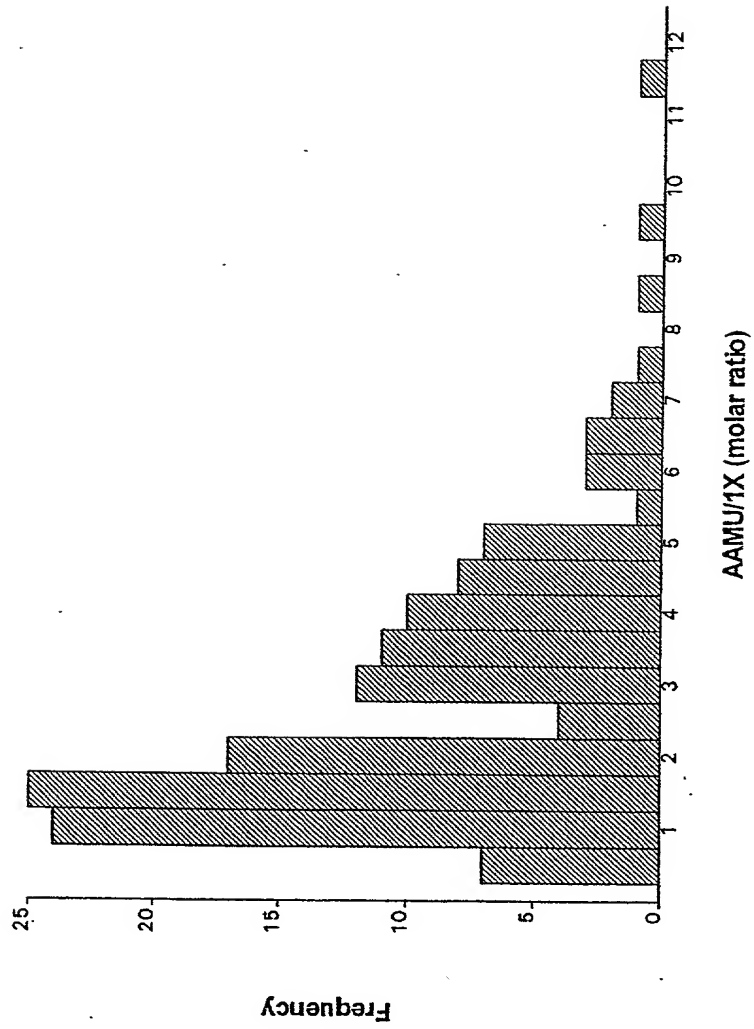


Fig. 20

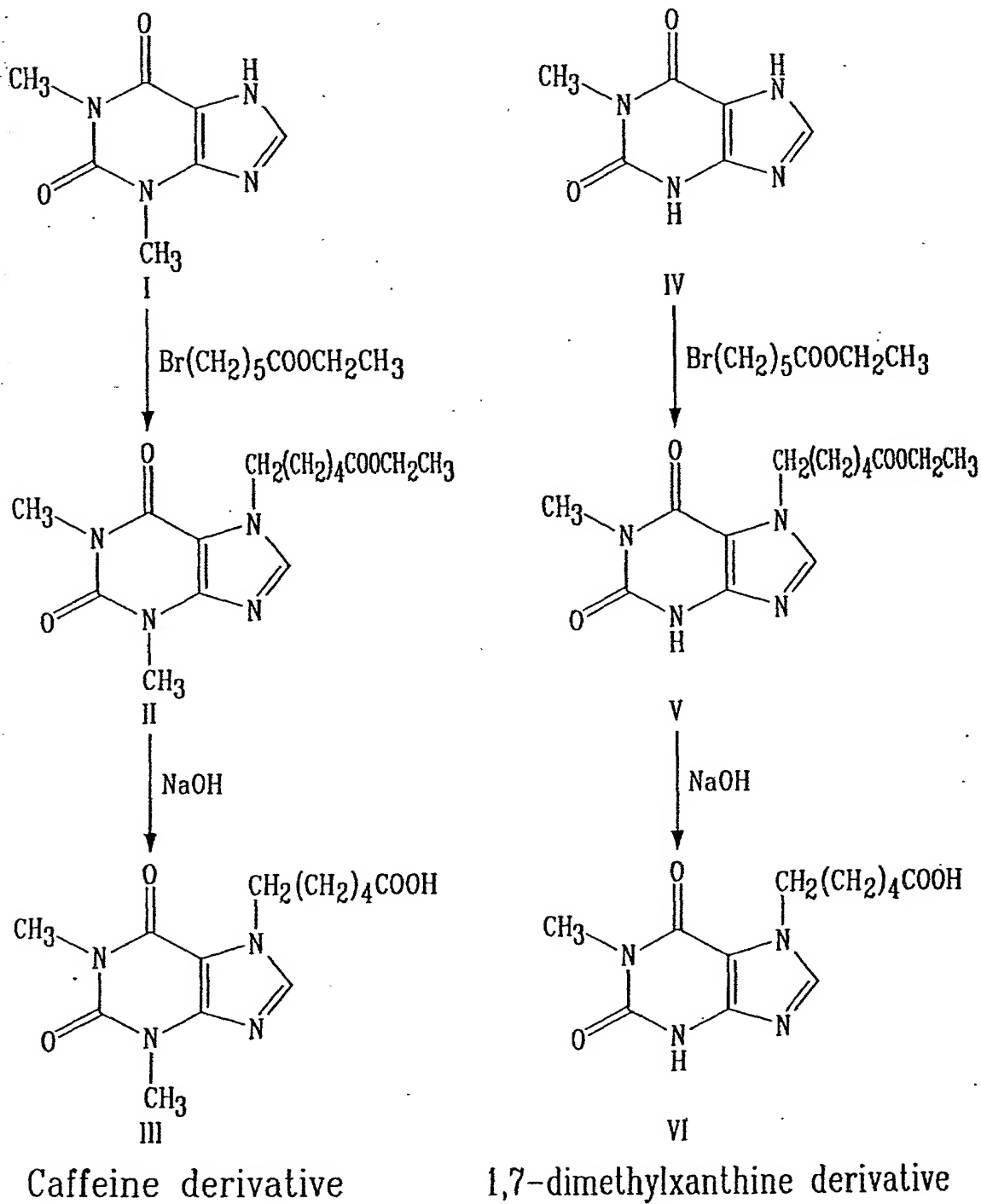
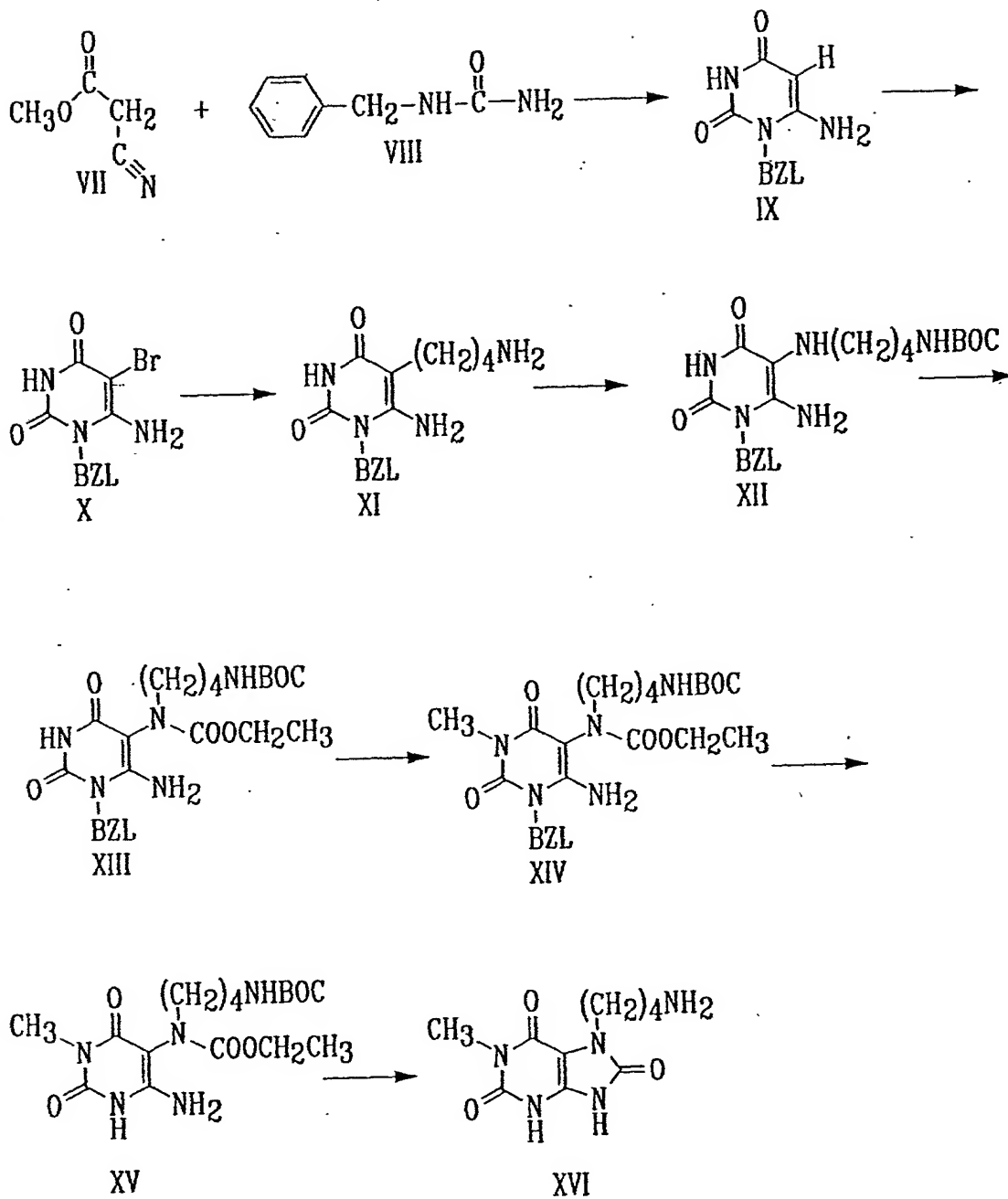


Fig. 21



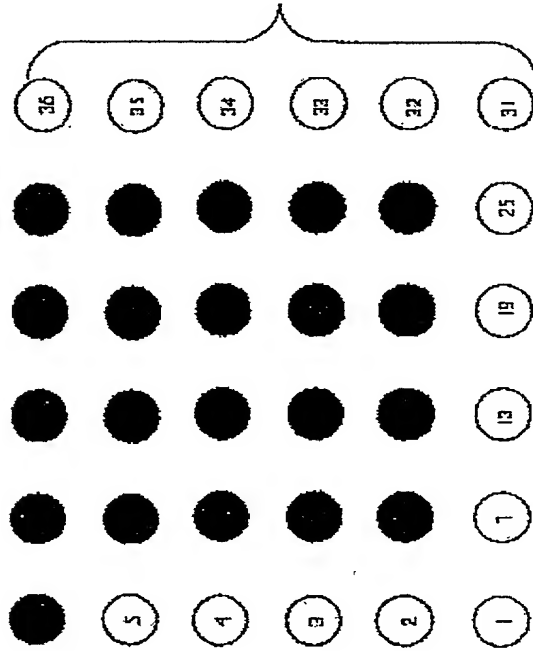
1,7-dimethyluric acid derivative

Fig. 22

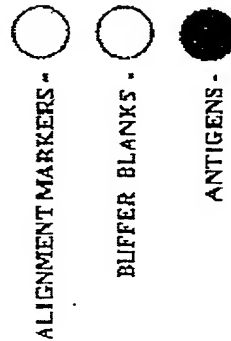
	1	2	3	4	5	6	7	8	9	10	11	12
A	Blk	STD8	STD16	S1	S9	S5	S1	S9	S5	Blk	STD8	STD16
B	STD1	STD9	STD17	S2	S10	S6	S2	S10	S6	STD1	STD9	STD17
C	STD2	STD10	STD18	S3	S11	S7	S3	S11	S7	STD2	STD10	STD18
D	STD3	STD11	STD19	S4	S12	S8	S4	S12	S8	STD3	STD11	STD19
E	STD4	STD12	STD20	S5	S1	S9	S5	S1	S9	STD4	STD12	STD20
F	STD5	STD13	STD21	S6	S2	S10	S6	S2	S10	STD5	STD13	STD21
G	STD6	STD14	STD22	S7	S3	S11	S7	S3	S11	STD6	STD14	STD22
H	STD7	STD15	STD23	S8	S4	S12	S8	S4	S12	STD7	STD15	STD23

Fig. 23

6 x 6 ARRAY



ARRAY LAYOUT:



ANTIGEN KEY:

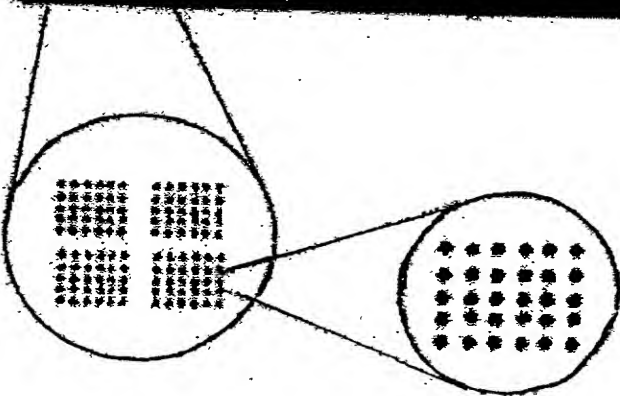
1. BIOTINYLATED BSA MARKER
- 2-6. BUFFER BLANKS
7. NAT2: AAMU
8. BIOTINYLATED BSA MARKER
9. NAT2: 1X
10. NAT1: pASA
11. NAT1: ACETYL-pASA
12. CYP1A2: CAFFEINE
13. BIOTINYLATED BSA MARKER
14. CYP1A2: 1,7-DMX
15. CYP1A2: 1,7-DMU
16. CYP2A6: COMARIN
17. CYP2A6: 7-HYDROXYCOUMARIN
18. CYP2C19: R-(-)-MEPHENYTOIN
19. BIOTINYLATED BSA MARKER
20. CYP2C19: S-(+)-MEPHENYTOIN
21. CYP2C9: DICLOFENAC
22. CYP2C9: 4-HYDROXYDICLOFENAC
23. CYP2D6: DEXTROMETHORPHAN
24. CYP2D6: DEXTORPHAN
25. BIOTINYLATED BSA MARKER
26. CYP2E1: CHLORZOXAZONE
27. CYP2E1: 6-HYDROXYCHLORZOXAZONE
28. CYP3A4: MIDAZOLAM
29. CYP3A4: 1-HYDROXYMIDAZOLAM
30. BUFFER BLANK
- 31-36. BIOTINYLATED BSA MARKER

Fig. 24



# 96-WELL MICROARRAY PLATE

4 ARRAYS/WELL



SINGLE ARRAY

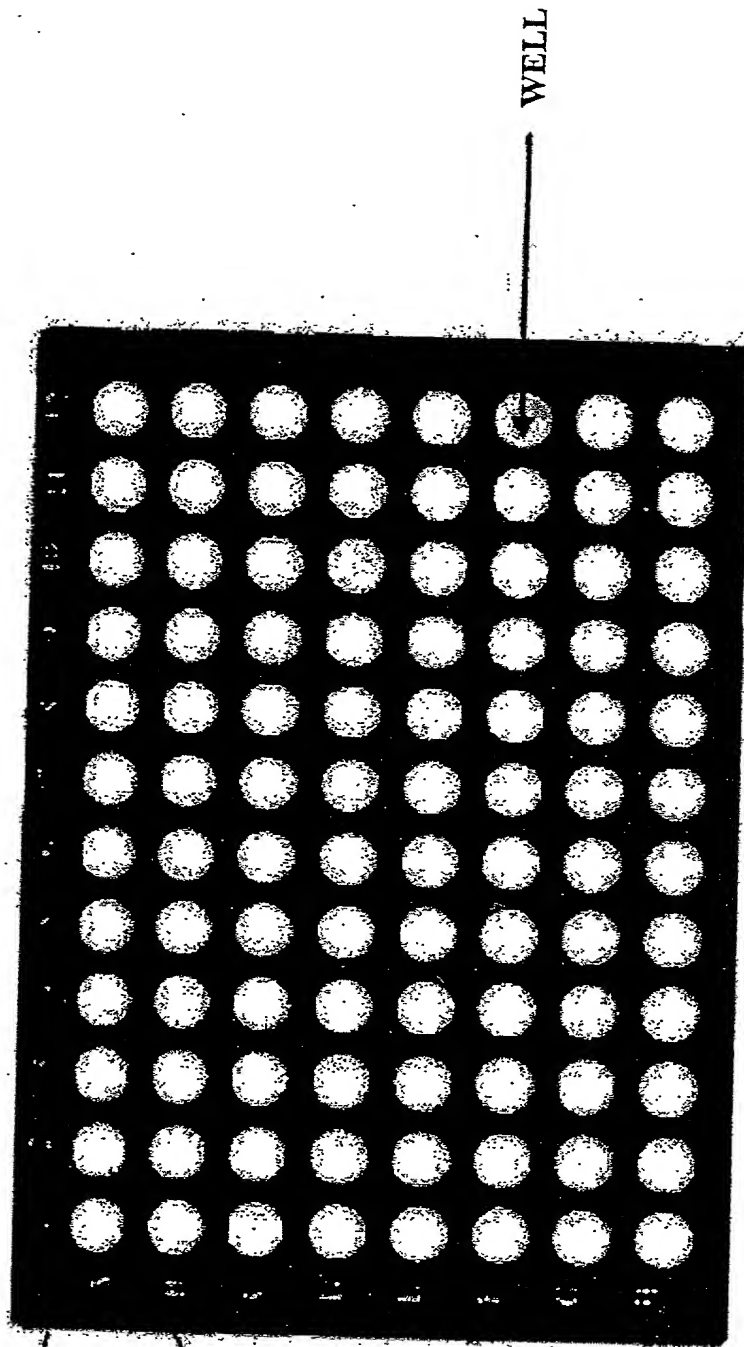


Fig. 25

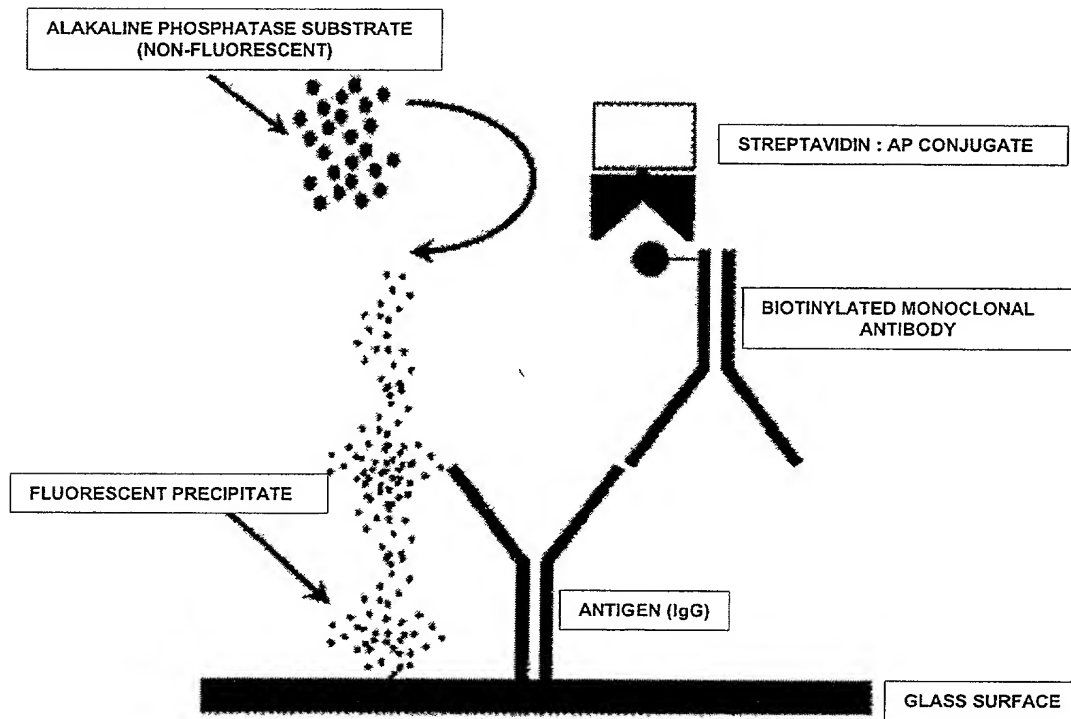


Fig. 26

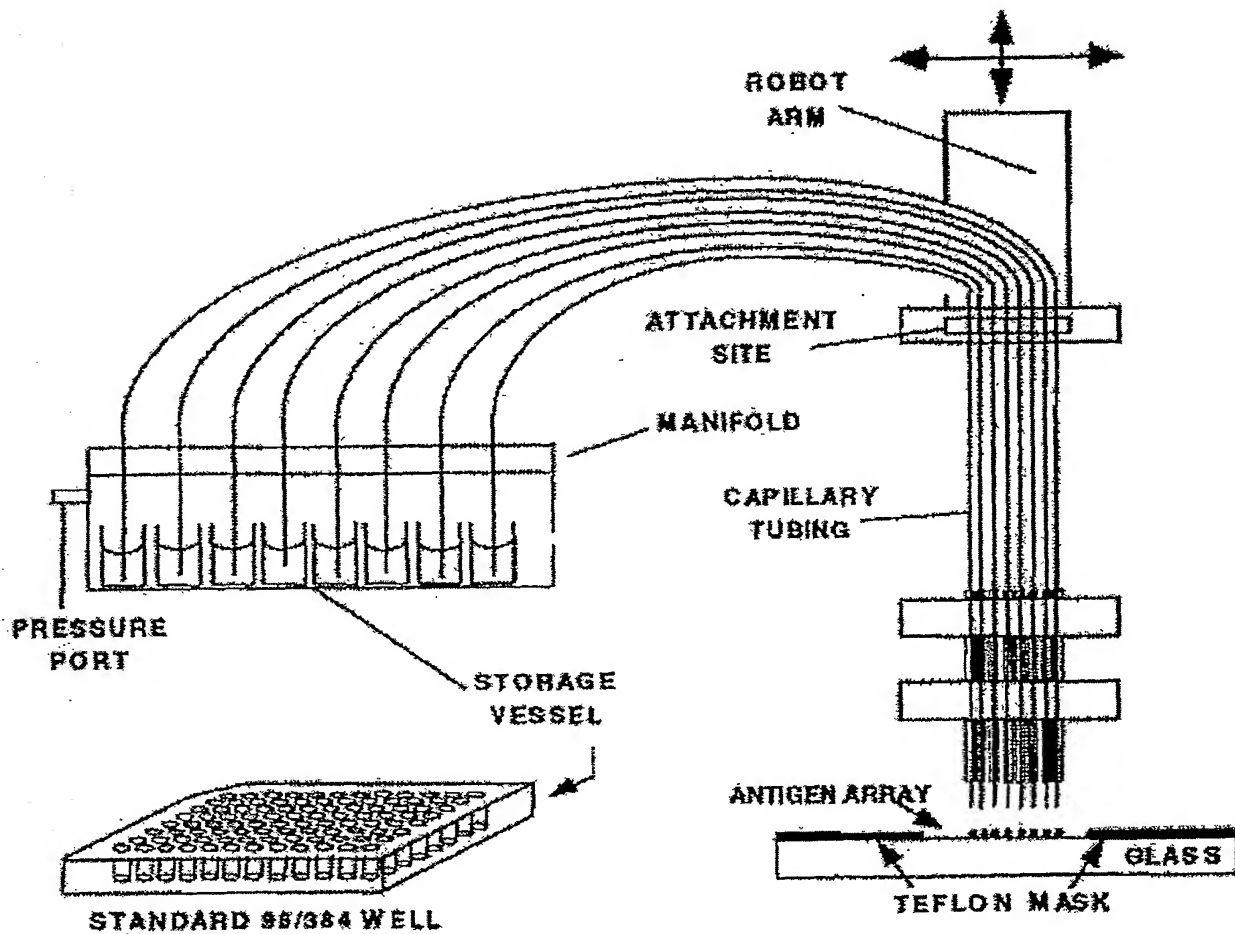


Fig. 27

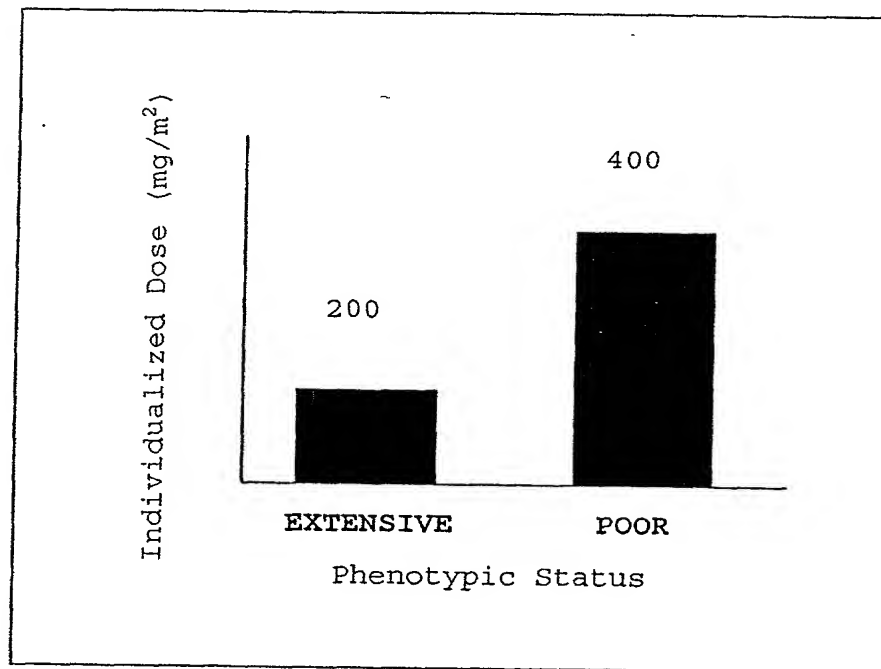
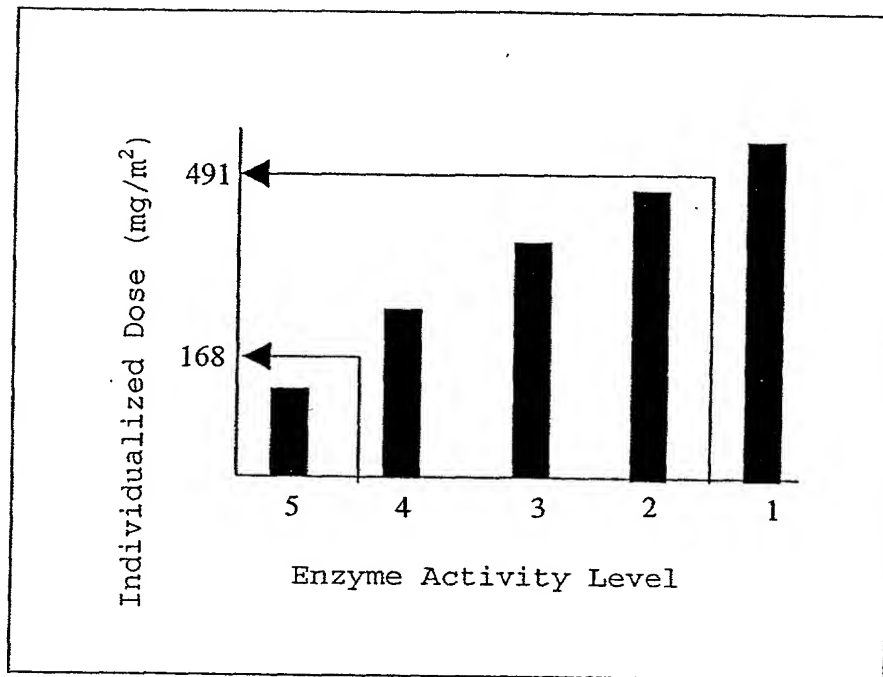


Fig. 28

Nomogram for the Determination of Body Surface Area (BSA)

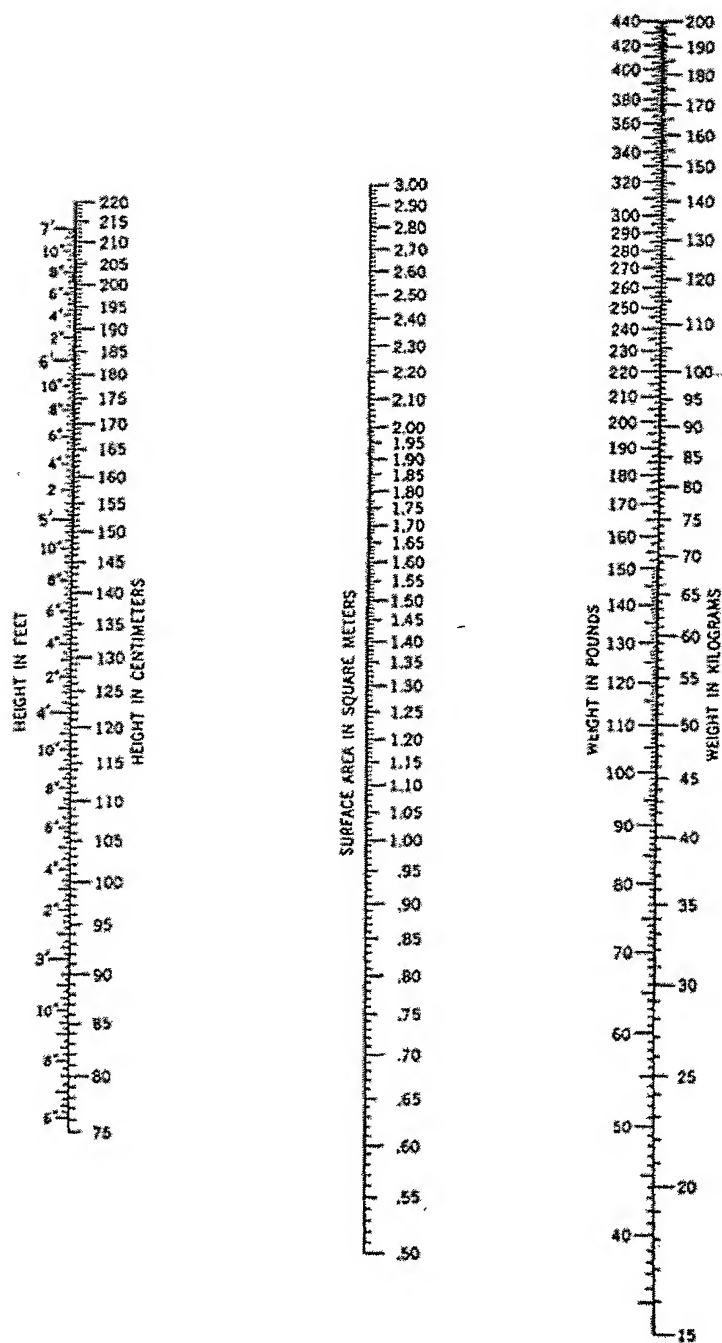


Fig. 29